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STATE OF WASHINGTON

DEPARTMENT OF ECOLOGY

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March 6, 2001

Mr. Clifford E. Clark
United States Department of Energy
P.O. Box 550, MSIN: A5-15
Richland, Washington 99352

Dear Mr. Clark:

Re: Comments on 200-PW-2 Work Plan, Draft A (DOE/RL-2000-60) 54292

Enclosed, please find comments from the Washington State Department of Ecology (Ecology) on the aforementioned work plan. Ecology also notes receipt of comments from the Nez Perce Tribe's Environmental Restoration and Waste Management Program (ERWM) in a letter to Mr. Bryan L. Foley, dated January 31, 2001. We look forward to seeing responses to both Ecology's and ERWM's comments.

If you have any questions or concerns regarding this letter or the enclosed, please feel free to contact me at (509) 736-3029.

Sincerely,

John B. Price

John B. Price, Environmental Restoration Project Manager
Nuclear Waste Program

JBP:sdb
Enclosure

cc: Doug Sherwood, EPA
Kevin Clarke, USDOE
Bryan Foley, USDOE
Eileen Murphy-Fitch, FH
Todd Martin, HAB
J.H. Richards, CTUIR
Pat Sabotta, NPT
Russell Jim, YN
Mary Lou Blazek, OOE
Administrative Record: 200-PW-2

General Comments

1. Some portions of the work plan would be difficult to grasp by individuals not very familiar with Hanford, e.g., the reference to "West Lake" on page 2.4 that doesn't correlate with a figure showing West Lake. This issue doesn't materially affect the regulatory compliance of the work plan, but some specific comments are provided to improve the layman's ability to understand the work plan.
2. The treatment of perched groundwater is incomplete. The Executive Summary (pg. ES-3) states that "lateral spreading of liquids and contaminants was limited." The Background and Setting (pg. 2-4) contains a couple of cursory references (one implied) to perched groundwater. Perched groundwater could potentially spread contamination laterally for substantial distances beyond nominal waste site boundaries. The work plan doesn't include enough information to explain the significance of perched groundwater. Additional explanation should be added for clarity.
3. The Department of Ecology made comments on other 200 Area work plans indicating the need for a better approach to ecological assessment. Certain information in this work plan reinforce that concern. For example, the description of UPR-200-W-163 is that (Table 2-1):

   "An unplanned release that consisted of radiologically contaminated vegetation growing above the buried pipeline to the 216-U-8 crib."

   The Department of Ecology has previously discussed with DOE that a comprehensive approach to ecological assessment is required for the 200 Area. Discussions are currently underway to define that approach. Accordingly, the Department of Ecology will not ask for ecological assessment to be addressed for 200-PW-2 at this time. We reserve the right to ask for Operable Unit-specific information at a later date.

Specific Comments

Comment #	Section/ Page/ Paragraph/ Sentence	Comment
1.	ES-3, 1st bullet pg. 2-3 et al.	The designation of the "Hanford formation/Plio-Pleistocene unit (?)" is not consistent with standard geological naming conventions . . . what entity "referred to" it that way?
2.	ES-3, 3rd bullet	Change "local significant" to "significant local"
3.	ES-3, 3rd bullet	Change "elevated levels" to "local accumulations"
4.	ES-3, last paragraph	Expand on "Potential human receptors include current and future site workers." That's true for the area "inside the fence" designated for industrial land use, and where it is assumed that groundwater use will be restricted. For the area "outside the fence" the groundwater exposure pathway would include non-workers at >50 years in the future.
5.	ES-3, last paragraph	Recommend replacing the last 2 sentences: "The type of future land use . . . (DOE 1999b).": with something like –

Comment #	Section/ Page/ Paragraph/ Sentence	Comment
		respectively).
19.	Section 2.1.3, 1st ¶	Text refers to "West Lake" to define a boundary, but the reference location doesn't show up on a suitable figure (any of Figures 2-8 through 2-12).
20.	2.1.3 ¶1 - 4th sentence ¶4 – 1st sentence	Both sentences refer to perched water. This implies a need to describe the vertical and horizontal location of the water in relation to the contaminants. This need is not addressed anywhere in this work plan. Descriptions of perched water should show up in Section 2.5.
21.	2.1.3 ¶3 – 7th sentence	The text refers to discharges "from sanitary sewers." This should be clarified as to whether its leakage or discharge of treated effluent. Also, this implies a need to describe the vertical and horizontal location of the "discharge" in relation to the contaminants. This need is not addressed anywhere in this work plan.
22.	2-5, 2nd ¶, 1st sentence	Insert "Historical" at start of sentence, i.e., "Historical discharges to the ground . . ."
23.	2-5, 4th ¶	As it reads, the sentence essentially communicates that "the water table is in the Hanford Formation except when it isn't." It can be inferred that the sentence is meant to communicate that the Hanford Fm. lies unconformably on the Ringold Fm. or basalt, so that in places the top of those formations extends above the water table. But the sentence would need to be re-written to communicate that clearly.
24.	2.1.4, 5th ¶	This paragraph would be obscure to anyone except those on the inside of the Hanford groundwater technical core. It appears to be a conglomeration of poorly stated facts rather than following the classic form of topic sentence – supporting sentences – concluding sentence. It could be re-written to greatly improve clarity and to introduce the concepts presented in Section 2.1.5. Some specific comments and questions are: • Is the groundwater flow direction difficult to measure (a) in general, or (b) using traditional 3-point approach (i.e., w/o using in-situ velocity measurements) • Do contaminant plumes truly suggest that current flow is primarily to the northwest and southeast (if so, insert the word "current"), or are the plumes simply a relict of historical discharges to ground? • ". . . 200 Areas suggest that groundwater flow is primarily to the northwest and southeast." lumps together an area of tens of square miles, whereas Figure 2-2 appears to subdivide that same area.
25.	2-7, 2nd ¶	2nd & 3rd sentences redundantly use "the average flow rate has been slowly decreasing as a result of a slight flattening of the water table in the vicinity of the crib" and one usage can be deleted.
26.	2-8	Capitalization & lower-case usage of "Building" in the same sentence seems inconsistent.
27.	Sec. 2.2.1, 1st ¶	5th paragraph reads as if the bismuth/phosphate waste was reused in the reactor plants. Rewrite.
28.	Table 2-1	6th column is "Contaminant/Volume Released" but some entries don't include a volume. Each entry should at least be annotated as to volume, e.g., "Volume unknown" or some other statement.
29.	Table 2-1	Depth of 200-W-22 is reported as "NR" but table is not footnoted and acronyms do not include "NR." Include an explanation.
30.	Table 2-1	For 200-W-42 Dates of Operation, change "1858" to "1958" (presumably)
31.	Table 2-1	For 216-A-28 General Description, change "french" to "French"
32.	Table 2-1	For 216-S-8 "allowing no close inspections of the area" may be out of

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		sufficient to address this comment, and no revision of the Work Plan is requested.